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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/880,737	06/13/2001	Ferencz S. Denes	032026:0538	4954

23524 7590 07/05/2005

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EXAMINER
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MAYEKAR, KISHOR

ART UNIT	PAPER NUMBER
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1753

DATE MAILED: 07/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/880,737

**Applicant(s)**

DENES ET AL.

**Examiner**

Kishor Mayekar

**Art Unit**

1753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-23 and 39-53 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1-23 and 39-53 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102 and § 103*

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1, 5, 6 and 14 stand rejected under 35 U.S.C. 102(b) as being anticipated by Berkowitz et al. (US 4,416,751), for reasons as of record. Further, to the added limitation that the dense fluid medium comprises water in claim 1, Berkowitz discloses in col. 3, lines 58-65 that the carrier fluid is an aqueous fluid.
3. Claims 8-13 and 15 stand rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Berkowitz '751, for reasons as of record.
4. Claims 1-15, 17, 21, 23 and 39-43 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. (US 5061,354) or savage et al. (4,731,515) in

view of Berkowitz '751 and/or Denes et al. (US 5,534,232), for the same reasons as of record.

5. Claims 16, 18-20 and 22 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Smith '354 or Savage '515 as modified by Berkowitz '751 and/or Denes '232 as applied to claims 1-15, 17, 21, 23 and 39-43 above, and further in view of Mason (US 5,660,465), for the same reasons as of record.

6. Claims 44-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith '354 or Savage '515 in view of Berkowitz '751 and/or Denes '232 and Mason (US 5,660,465), for the same reasons as applied to the rejection of claims 16, 18-20 and 22.

As to the provision of the recited ceramic holder in claim 53, it has been held that the motivation to make a specific structure is always related to the properties or uses one skilled in the art would expect the structure to have, *In re Newell* 13 USPQ 2d 1248, *Fromson v. Advance Offset Plate* 225 USPQ 26; *In re Gyurik* 201 USPQ 552.

*Response to Arguments*

7. Applicant's arguments filed April 27, 2005 have been fully considered but they are not persuasive.

In response to Applicant's argument in section II of page 8 of the remarks that because both of the two electrodes of Berkowitz '751 are either moving back and forth or rotating, neither can be said to be a "static" electrode, the examiner finds this is unpersuasive. First, as the specification discloses in paragraph [0038] of page 11 that the lower electrode is a non-rotating electrode. Second, as Berkowitz's electrode 4 in the sole Figure is mounted to the bottom of a container, wherein the container is mounted on a bed of an electric discharge machine and is moved back and forth by the bed, and moved with the container (col. 5, lines 16-24). Third, as the power supply is maintained to charge electrodes 3 and 4 and produce the electric discharge between the electrodes necessary to erode one or both electrodes and produce particles, and as the gap between the electrodes is automatically adjusted or controlled by means of hydraulic cylinder 6 to insure optimum discharge conditions (col. 2, lines 13-29). As such, since the electrode 4 is being a static electrode in the meaning that it is not rotated and is statically fixed

in relative to the electrode 3 and the container during the operation, the rejection is maintained.

As to the argument in section III of page 9 of the remarks, since Berkowitz teach the use of a static electrode 4, the rejection stands. As to the subsequent argument on pages 10 and 11 with respect to Denes, since Denes shows the formation of nano-particle type metal implantations in the reaction products and powdery samples as asserted by the examiner in the first Office action and since Denes further shows that the dense medium is any liquid (col. 3, lines 28-31; col. 5, lines 43-50), the rejection stands.

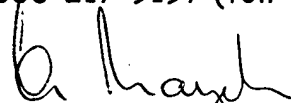
As to the argument in section IV of page 11, since Berkowitz teach the use of a static electrode 4, the rejection stands. As to the subsequent argument on pages 12 and 13 with respect to Denes and Mason, since Denes shows the centrifugal force created by rotating the upper rotatable electrode induces intensive movement and mixing of the reactant material, and Mason shows a screw conveyor provided with pins to enhance the mixing action of the fluid as asserted by the examiner, the rejection stands as the provision of spins on electrodes would further enhancing the mixing of the material. As to the argument that the inclusion of Mason's pins in Denes teach away from Denes' teachings, the examiner

ponders the same will apply to the recited pins on the upper rotatable electrode since Applicant discloses in paragraphs [0044] and [0045] in pages 15 and 16 the same role and configuration of electrodes as that of Denes.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kishor Mayekar whose telephone number is (571) 272-1339. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kishor Mayekar  
Primary Examiner  
Art Unit 1753